

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/39339

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G01N 15/06

US CL : 250/338.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : Please See Continuation Sheet

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,420,706 B1 (LURIE et al.) 16 JULY 2002 (16.07.02), see entire document.	1-3
X	US 6,498,347 B2 (SAUER et al.) 24 DECEMBER 2002 (24.12.02), see entire document.	1-3
X	US 2002/0127760 A1 (YEH et al.) 12 SEPTEMBER 2002 (12.09.02), see entire document.	16, 17
Y,P	US 6,707,121 B2 (DE MOOR et al.) 16 MARCH 2004 (16.03.04), see entire document.	1-3, 16-17
Y,P	US 6,805,839 B2 (CUNNINGHAM et al.) 19 OCTOBER 2004 (19.10.04), see entire document.	1-3, 16-17
Y	US 6,080,988 A (ISHIZUYA et al.) 27 JUNE 2000 (27.06.00), see entire document.	1-3, 16-17
Y,P	US 6,903,860 B2 (ISHII) 07 JUNE 2005 (07.06.05), see entire document.	1-3, 16-17
Y,P	US 2005/0017313 A1 (WAN) 27 JANUARY 2005 (27.01.05), see entire document.	1-3, 16-17

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

09 September 2005 (09.09.2005)

Date of mailing of the international search report

27 OCT 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

David Porta

Telephone No. 571-272-2444

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/39339

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☒ Claims Nos.: 4-15
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of any additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

- Remark on Protest
- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
 - ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
 - ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US04/39339

Continuation of B. FIELDS SEARCHED Item 1:
250/338.1, 370.01, 370.08, 330, 332, 352, 374/185, 179

Continuation of B. FIELDS SEARCHED Item 3:
USPTO WEST 2.0
Search terms: bolometer, microbolometer, cantilever, deflect, deflection.

Box No. VIII(ii) DECLARATION: ENTITLEMENT TO APPLY FOR AND BE GRANTED A PATENT

The declaration must conform to the standardized wording provided for in Section 212; see Notes to Boxes No. VIII, VIII(i) to (v) (in general) and the specific notes to Box No. VIII(i). If this Box is not used, this sheet should not be included in the request.

Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate:

in relation to this international application,

TRUSTEES OF BOSTON UNIVERSITY and FRAUNHOFER USA, INC., are entitled to apply for and be granted a patent by virtue of the following:

an assignment from

LI, Biao, of 27 Lanark Road, Brighton, Massachusetts 02135, United States of America;

ZHANG, Xin, of 62 Bay State Road, #9, Boston, Massachusetts 02215, United States of America;

BIFANO, Thomas, of 30 Nelson Way, Mansfield, Massachusetts 02048, United States of America; and

SHARON, Andre, of 149 Greenwood Street, Newton, Massachusetts 02459, United States of America

to THE TRUSTEES OF BOSTON UNIVERSITY and FRAUNHOFER USA, INC., dated 27 May 2004.

This declaration is made for the purposes of all designations (except the designation of the United States of America).

☒ This declaration is continued on the following sheet, "Continuation of Box No. VIII(ii)".